

**INITIAL ENVIRONMENTAL EXAMINATION
OR
CATEGORICAL EXCLUSION**

PROGRAM/ACTIVITY DATA:

Program/Activity Number 611-005

Country/Region: Zambia/ESA

Special Objective SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources

Funding Begin: FY 2004 **Funding End:** FY2010

LOP Amount: \$46.5 Million **Sub-Activity Amount:** N/A

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Current Date: September 8th, 2003

IEE Amendment (Y/N): N If "yes", Filename & date of original IEE: NA.

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion: X Negative Determination: X

Positive Determination: _____ Deferral: X.

ADDITIONAL ELEMENTS: (Place X where applicable)

EMEMP: _____ CONDITIONS: X PVO/NGO: X.

SUMMARY OF FINDINGS

SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources will build on successes achieved and lessons learnt under the previous SO 1: Increased Rural Incomes of Selected Groups, to promote the growth and competitiveness of smallholder agriculture and the productive participation of rural communities in natural resource and tourism sectors-based micro-enterprise development. The strategy will emphasize competitiveness and the ability of producers and processors to increase product quality and quantity, improve marketing and margins, and increase market share in local, regional and international markets.

The purpose of this IEE is to provide the necessary environmental review and documentation, per 22 CFR Part 216, to permit the implementation of new development activities. The following four (4) Intermediate Results will contribute to the achievement of SO 5: IR 5.1: Increased Access to Markets; IR 5.2: Enhanced, Value-Added Production and Technologies; IR 5.3: Increased Access to Financial and Business Development Services; and IR 5.4: Improved Enabling Environment for Growth.

Categorical exclusions are recommended for the activities in IRs 5.1, 5.2 and 5.4, to the extent that, under 22 CFR 216.2(c)(1)(i), the classes of actions supported do not have a direct effect on the natural or physical environment.

Categorical exclusions are recommended for these activities under 216.2(c)(2)(i), (ii), (iii), (v) and (xiv), because they entail education, technical assistance and training [i]; small scale experimentation and research [ii]; analyses, studies, coordinating activities, workshops and meetings [iii]; document and information transfers [v]; and studies, projects or programs intended to develop the capability of recipient countries and organizations to engage in development planning [xiv].

Note that the Categorical Exclusion under 22 CFR 216.2(c)(2)(x) (Intermediate Credit Institutions) does not apply to activities under this IEE, as USAID will expressly reserve the right to review loans for support to microfinance institutions and may require that procedures for environmental review be incorporated, where environmental impacts are deemed likely to occur.

Based on a pro-active approach that includes capacity-building for implementing partners and mitigation and monitoring/evaluation procedures to which the Mission commits itself, a **Negative Determination with Conditions**, pursuant to 22 CFR 216.3(a)(2)(iii)), is recommended for the following activities:

1) Intermediate Result (IR) 5.1: Increased Access to Markets. Activities under this IR seek to develop natural resource products, promote tourism market growth opportunities, and improve the environment through application of Community Based Natural Resource Management (CBNRM) approaches, including sustainable harvesting of non-timber forest products.

2) IR 5.2: Enhanced, Value-Added Production and Technologies. Activities under this IR will entail the promotion of conservation farming, conservation tillage, biotechnology products, and other production-enhancing technologies.

3) IR 5.3: Increased Access to Financial and Business Development Services. Activities under this IR will involve the provision of innovative finance and capital options for small-scale enterprises, use of credit guarantees (such as DCA), and provision of private sector Business Development Services (BDS) for business expansion and growth, expansion of private sector, building of small-holder and NRM group business capacity.

These above-listed activities shall be subjected to an environmental screening process, using the Africa Bureau Environmental Screening Form (ESF), so that potential adverse environmental impacts and their appropriate mitigation and monitoring measures can be identified and implemented. Host country sectoral environmental guidelines will be used in the implementation of recommended adverse impact mitigation and monitoring measures for minimizing or preventing the occurrence of adverse impacts.

A **Negative Determination with Conditions** is also recommended for pesticide use in any production enterprises supported under SO 5, pending further details on if, how and which pesticides may be used in the SO, and pending more details on any potential pest management component. **The conditions are that a BEO approved Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) will be prepared covering all affected programs in accordance with the requirements of USAID's Pesticide Procedures, set forth at 22 CFR 216.3(b); that the PERSUAP is widely and appropriated disseminated; and that the use of the PERSUAP is required for activities involving pesticides.** The PERSUAP shall be incorporated into this IEE through formal amendment of this IEE..

A **Deferral** is recommended for two proposed program components under SO 5: 1) Under 1R5.1, for any activities involving support for timber extraction or for mining, pending additional environmental review; and 2) Under IR5.2, for technology development and dissemination involving genetically modified organisms (GMOs), pending further details on if, how and which transgenic materials may be addressed by the SO, and more details on the biotechnology product promotion component.

As required by ADS 204.5.4, the Mission SO 5 Team will actively monitor ongoing activities for ensuring compliance with approved IEE recommendations, and modify or end activities that are not in compliance. The Mission team will undertake periodic field visits to assess the implementation and performance of mitigation and monitoring measures, and to identify appropriate areas of improvement where necessary. If additional activities are added to this program that are not described in this document, an amendment to this IEE must be prepared.

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED: (Type Name Under Signature Line)

CLEARANCE:

Mission Director: _____/cleared/
Allan Reed

Date: 12 September 2003

CONCURRENCE:

Bureau Environmental Officer _____/concurred/
Carl M. Gallegos

Date: 10/6/2003

Approved: X

Disapproved: _____

File No: 34Zambia1 SO5 PvtSector.doc (USAID/AFR BEO)

CLEARANCE:

General Counsel
(Africa Bureau) _____/cleared/
Tanya J. Nunn

Date: 11/24/03

ADDITIONAL CLEARANCES: (Add as appropriate, type name under signature line)

SO Team Leader /MEO: _____/s/
Dann Griffiths

Date: 12 September 2003

Regional Environmental Officer: _____/cleared/
Walter I. Knausenberger

Date: 8 September 2003

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM/ACTIVITY DATA:

Program/Activity Numbers: 611-005
Program Name: Special Objective SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources
Country/Region: Zambia/ESA

1.0 BACKGROUND AND PROGRAM DESCRIPTION

1.1 Introduction

Zambia has a huge potential in agricultural production and natural resources sectors. The constraints affecting agricultural development and small-scale rural agribusiness competitiveness are mainly due to: lack of capacity, clarity and consistency to generate and implement liberalization policies that are conducive to private sector agricultural growth; poor market access and under-developed markets that limit production; Inadequate sources of investment finance and capital; low farm and firm production and productivity due to lack of technical information; limited use of modern production, value-adding technologies, and business management services; poor or non-existent infrastructure including telecommunications, roads and power supply facilities; labor supply constraints due to the HIV/AIDS epidemic; widespread loss of animal draft power due to disease; and the continuing gender imbalances that promote inequitable access to resources and opportunities for women.

The constraints affecting the development of the country's natural resources and eco-tourism sectors are similar to those of the agriculture sector. Additionally, the natural resources sector suffers from over-exploitation, largely due to illegal hunting and harvesting and the pressures of human population in wildlife protection and forestry areas. The SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources, aims to increase food security and market competitiveness in local, regional and global markets. This will be attained by focusing on market and financial linkages, adoption of technologies, and implementation of enabling policy and appropriate regulatory interventions in agriculture, natural resources and tourism sectors, while addressing gender-related constraints. This will contribute to increased economic development and improvement of competitiveness in agriculture, natural resources and eco-tourism development activities. Also, it will build on the successes that were achieved and lessons learned under the previous SO1 "Increased Rural Incomes of Selected Groups", to promote the growth and competitiveness of smallholder agriculture and the productive participation of rural communities in natural resource and tourism sectors. The strategy will emphasize competitiveness and the ability of producers and processors to increase product quality and quantity, improve marketing margins and increase market share in local, regional and international markets.

1.2 Purpose and Scope of this Initial Environmental Examination (IEE)

The purpose of this IEE is to provide the necessary environmental documentation, pursuant to 22 CFR 216 (Regulation 216) and ADS 204 for SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources. The aim is to ensure that the necessary environmental compliance requirements are in place, so as to permit the implementation of the program activities in accordance with USAID Environmental Policies and Procedures. This IEE does not cover any use of pesticides, as stated in the Africa Bureau, Environmental Guidelines for Small-Scale Activities in Africa (1996), concerning the procurement, handling and use of pesticides. SO 5 builds on the lessons learnt and successes of the FY 1998-FY2003 CSP's SO 1: "Increased Rural Incomes of Selected Groups" whose IEEs were filenames: 29zamb2 SO1 and 32zamb2so1.

The IEE provides **Threshold Determinations** for various program activities, ensuring compliance with Regulation 22 CFR 216 and ADS 204. It allows for future amendments of the IEE, as new activities are included or existing ones are extended or cancelled. The SO5 Team is responsible for continuous monitoring and evaluation of activities. The aim is to ensure that the activities remain as **Categorical Exclusions** or within the bounds of **Negative Determination with Conditions**. **Deferrals** require further environmental examination following receipt of additional information before determinations can be made.

1.3 Results Framework for SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources

SO5 will build upon successes achieved and lessons learnt under SO 1 “Increased Rural Incomes of Selected Groups” of FY 1998-FY 2003 CSP. It will focus on the promotion of competitiveness of smallholder agriculture and the productive participation of rural communities in natural resource and tourism sectors. SO5 will emphasize competitiveness and ability of producers and processors to increase product quality and quantity, improve marketing and margins, and increase market share in local, regional and international markets. The following four (4) Intermediate Results (IRs) will contribute towards the achievement of SO 5:

IR 5.1: Increased Access to Markets. This IR focuses on development of natural resource products and tourism market growth opportunities, and enhancement of the environment through CBNRM approaches. The activities will identify opportunities for communities’ productive participation in eco-tourism, sustainable harvesting of non-timber forest products, and other natural products such as fruits, fibers, grass, mushrooms, honey and medicinal plants, the promotion of handicrafts and other products made from natural materials, and enhanced income generating opportunities for rural communities.

Other IR 5.1 activities include expansion of international business and trade partnerships; trade promotion through trade shows; local, regional and international trade-related informational tours; actions to provide appropriate HIV/AIDS programs for the benefit of participating communities; establishment of producer and market linkages; agricultural and natural resource product identification; providing marketing training, feasibility studies, and promotion options such as access to trade shows, market identification and promotion for livestock and natural resource products and services; natural resource and wildlife tourism promotion, HIV/AIDS behavior change and prevention; and, promotion of outreach programs.

*The Mission SO5 team originally identified logging/ timber extraction and gemstone collection (mining) as areas for potential support under this IR. However, as explained in Sections 3 and 4, below, environmental review for these activities is **deferred** until additional information regarding the full nature and scope of the proposed activities is submitted that permits appropriate environmental examinations and correct environmental determinations. Thus, no logging/timber extraction or mining activities are permitted absent advance environmental review completed in accordance with Reg 216 and Sections 118 and 119 of the Foreign Assistance Act of 1961, as amended, including Section 118(c)(14) and (15). This IEE shall be amended to include the results of the environmental reviews and the environmental determinations for any proposed logging/ timber extraction or mining activities prior to the obligation or expenditure of funds for such activities.*

IR 5.2: Enhanced Value-Added Production and Technologies. This IR seeks to: enhance agricultural productivity and product quality through strengthening of producer groups and out-grower competitiveness; increase the exposure of small-scale producers in agricultural or natural products to new technology that helps to increase production and add value to produce; improve grades and standards through enhanced quality assurance and compliance with international standards and certifications such as those of the International Standardization Organization (ISO) and international labeling standards, such as the sanitary and phyto-sanitary standards set forth by the Organic and Fair Trade Labels organization. In response to the HIV/AIDS epidemic and the increase in women-headed households, labor-saving technologies will also be employed. In addition, information and training on vital household nutritional and health issues will be provided.

IR 5.2 activities will also involve the promotion of conservation farming, conservation tillage, biotechnology, and other production-enhancing technologies such as small-scale irrigation, water harvesting, soil fertility interventions, promotion of tourism through preservation of wildlife, forests and cultural sites; improved infrastructure; building of CBNRM groups, exploration of value-added options for existing and new sustainable harvesting and management of non-timber natural resource products; and expansion of opportunities for community involvement in eco-tourism development and management activities.

IR 5.3: Increased Access to Financial and Business Development Services. This IR seeks to promote or support: innovative finance and capital options for small-scale enterprises, including the use of credit guarantees to back up financing in some cases; inventory credits and warehouse receipts; credit and savings through out grower companies and producer groups; use of insurance; assistance with procurement mechanisms; investment-based options for capitalization, such as equity financing and venture capital; and, the needs of female clients, particularly where

traditional and other constraints limit their access to finance and capital. This IR will include activities that seek to build operational and management capacities through provision of private sector business development services (BDS) for business expansion and growth; expand private sector BDS (extension); build small-holder and NRM group business capacity; develop sources for BDS services, such as market information and business planning; and, support HIV/AIDS in the workplace programs.

IR 5.4: Improved Enabling Environment for Growth. This IR will focus on the creation of an enabling environment to deal with policy and regulatory issues related to agriculture and natural resource management through support of public and private sector dialogue; identification of trade opportunities, issues and constraints; development of a supportive and enabling policy and regulatory environment for reform; and support for development of effective laws and regulations in the agriculture and environmental sectors.

Agriculture-related issues include, inter alia: supporting consistent policies and practices regarding production inputs, technology development and output marketing channels; supporting the development of effective law, regulations and policies for finance and rural infrastructure development in the agriculture sector; review and possible reform of the Land Act of 1995, including its assessment of its implementation and the establishment of an administrative system to meet emerging production demands.

Key issues in the natural resource sector include: coordination and potential consolidation of governmental environmental policies; revision to existing environmental laws and regulations (including those related to land tenure and CBNRM) and to strengthen the enforcement mechanisms and penalties; support for public and private dialogue to overcome policy and regulatory constraints to growth in the natural resource sector.

2.0 COUNTRY ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

2.1 Introduction

Zambia is a sub-tropical Country covering an area of 752,972 km², with an average altitude of 1,200m above sea level. The altitude varies from 1,500m - 2,000m in the northeast; to 350m – 600m in the south at the confluence of the Zambezi and Luangwa rivers. The Zambia landmass is characterized by three **Agro-Ecological Zones**:

Region I: This region covers the eastern and southern rift valley areas, and the southern parts of Western and Southern Provinces. It is characterized as a semi-arid area, having a hot and dry climate, with rainfall of less than 800mm per annum, and a short growing season of between 80 and 120 days. The rainfall is highly variable and unreliable within one rainy season, making it a marginal agricultural production area.

Region II: This region covers the Sandveld Plateau zone of Central, Eastern, Lusaka and Southern Provinces. The region is a medium rainfall zone with 800-1,200mm per season, and has a growing season of 120-150 days. This has been the most productive region of Zambia, but some soils in the region have been severely depleted, due to over-farming and poor production management practices.

Region III: This region is part of the Central African plateau covering Northern, Luapula, Copper-Belt and North Western Provinces, as well as parts of Serenje and Mkushi Districts. The region is a high rainfall area of 1,200mm and above, and has a growing season of up to 190 days. The high rainfall has resulted in considerable soil nutrient leaching and erosion. The soils are highly acidic, limiting the range of crops that can be grown, especially if more intensive farming management-practices are not properly applied.

2.2 Climate

The climate of Zambia is influenced by three main factors: The Inter-Tropical Convergence Zone (ITCZ), Altitude and El Nino. ITCZ is an area where two air masses from the northern and southern hemisphere meet, producing an active convective area that, in turn, causes convectional rainfall.

Zambia is characterized by three distinct seasons: (1) The warm rainy season (November to April); (2) The cool dry season (May to July); and, (3) The hot dry season (August to October). The Country experiences temperature differences ranging from 16°C to 27°C in the cool-dry season and from 27°C to 38°C in the hot-dry and warm rainy seasons. The high altitude areas experience cooler temperatures than the low-lying regions.

2.3 Soils

In general, the soils that have developed on the plateau region of northern and north-western parts of the country in *agro-ecological Region III* are the *strongly weathered, highly leached and very strongly acid clayey to loamy soils*. The eastern and south central plateaus have *moderately leached clayey to loamy soils with medium to strong acidity*. These soils are found in *agro-ecological Region II*. In the western part of the country the soils are *very strongly to strongly acid, coarse to fine sandy soils* with more than 90% quartz developed over Kalahari sands. This constitutes *agro-ecological Region II*. The soils of the escarpment zone are *shallow, coarse to fine loamy soils*. The valley trough has *loamy to clayey soils*. The last two geomorphic units constitute *agro-ecological Region I*. The *sandy to heavy clay water-logged soils* are found in the floodplains and dambos.

2.4 Drainage

Zambia is well endowed with surface and ground water resources. The major perennial rivers constituting surface water include the Zambezi, Luangwa, Kafue, Kabompo, Luapula and Chambeshi. The major lakes of Zambia are Bangweulu, Kariba, Tanganyika and Mweru.

Surface water from these rivers covers about 6% of the Country (ZFAP, 1998). If all the wetlands are included, surface water covers 20% of Zambia's land area (Chabwela, *et al*, 1994). The water bodies also constitute wetland areas of Zambia, such as Kafue Flats, Bangweulu Flats, Zambezi Flood Plain and Luangwa Valley Flood Plain. Some of these wetland areas are listed as wetlands of international importance under the Ramsar Convention.

2.5 Agricultural Production Agriculture is the mainstay for the majority of households in Zambia. It provides the bulk of food and cash requirements. Much of this is dominated by small-scale farmers, who representing 79% of the farming community (IFAD, 1993). Current estimates put the total number of small-scale farmers at 600,000 (MAFF, 1998). Large-scale farmers are estimated at 1% of the total farming population, while emergent medium scale farmers constitute 20% of the farming population. The sustenance of agricultural production and land productivity at certain levels has caused the adoption of different farming systems and production technologies by different categories of farmers, depending on the Agro-Ecological Zone.

2.6 Population

While Zambia is the most highly urbanized country in sub-Saharan Africa, 50% of the population still lives in rural areas, with the majority engaged in agriculture and livestock production. The rural economy, including both farm and non-farm enterprises, accounts for approximately 50% of the gross national product (GDP). Despite the importance of the rural sector, it lags significantly behind the urban sector in virtually all social and economic development indicators. Focus on the rural sector development for closing this gap is essential to any development effort so as to realize sustainable development in Zambia.

The population of Zambia has grown rapidly over the years. It was enumerated at 4.1 million in 1969, grew to 5.7 million in 1980, and 7.4 million in 1990. In 2001, it was estimated to have grown to approximately 10 million. The estimated population growth rate was 3.1%, which was one of the highest in the world, implying approximately a 23-year doubling time of the population (UNDP, 1998). This growth rate has recently declined to 2.9%. The structure of the population is characterized by a high proportion of youth (51% under 16 years old), indicating a high dependency ratio. Such indications underline a considerable momentum for future population growth. This population growth rate is due mainly to high fertility rates, calculated at 6.7 children per woman, and reduced mortality rates. The fertility rate is considered to be the highest in Africa. Fertility rates are even higher in rural areas (7.0 children per woman) as compared to urban areas (6.3 children per woman). This is due to lower levels of literacy and contraceptive methods use. High fertility rates, complimented by lowered mortality rates between the 1960s and 1980s, led to the rapid increase in the Zambian population.

The availability of water is another factor, which affects population distribution. Most people like to settle along perennial streams or major rivers, around swamps, lakes and big dambos (swampy areas) to be close to the water source for domestic water supply, agriculture (including livestock) and fishing. The other factor is tsetse fly

distribution. Areas infested with tsetse flies (which are disease vectors for sleeping sickness) are sparsely populated, due to the prevalence of trypanosomes (e.g. *Glossina Palidipes*, etc.) which affect both livestock and humans.

2.7 Poverty

Measured in terms of real household incomes, expenditures, asset ownership, nutritional status, disease incidence and access to quality social support service and amenities, in 1991, 68% of Zambians were living below the poverty line. In 1996, the figure was 78%, with a slight decline to 73% that was recorded in 1998.

The incidence of poverty according to the 1998 survey is higher in the rural and peri-urban areas (83%) like Western Province, than urban areas (56%) (CSO, 1998). In terms of various strata, poverty is more serious among the most disadvantaged groups of society, namely the subsistence farmers, unemployed, women, children and the disabled.

There is a high correlation between poverty and environmental degradation as a result of poor people's dependence on exploitation of the environment for survival (UNDP's Zambia Human Development Report, 1998). The poverty situation in the country intensifies natural resource exploitation which, if poorly regulated, cause resource depletion and environmental degradation.

2.8 Legislative and Institutional Framework

Environmental Legislation: Zambia lacked a clear and consistent environmental management policy until the mid 1980s. Accordingly, environmental concerns were not a major input in the social and economic development processes of the country. In addition to the absence of a consolidated 'environmental policy', there has been a myriad of various pieces of legislation dealing with different aspects of the environment; some dating as far back as the pre-independence era and others have not been reviewed. These pieces of legislation were scattered in different sectoral Acts relating to many activities such as use of water, wildlife, land, mining and others. They have been noted to be rudimentary, sectoral, scattered and at times contradictory to each other (Mweene, 1998, after Imboela, 1996).

The government attempted to overcome this problem through the formulation and implementation of the National Conservation Strategy (NCS) of 1985. This saw and marked the beginning of serious attempts by the government to incorporate environmental management considerations including issues of land degradation in the mainstream development process of the country. Apex institutions, Environmental Council of Zambia (ECZ) and the Ministry of Tourism, Environment and Natural Resources (MTENR) were created, including the enactment of the Environmental Protection and Pollution Control Act (EPPCA). The government has identified and recognized increased deforestation, water pollution, inadequate water supply and sanitation, land degradation, air pollution in mining areas as factors which all lead to biodiversity loss. The development of the Zambia Forestry Action Plan (ZFAP) forms part of the National Environmental Action Plan (NEAP) adopted by the Government of the Republic of Zambia a policy frame work in 1994.

The ZFAP was prepared in response to the 1985 summit on environmental degradation recommendation that National Forestry Action Plans should be developed to address the problems of deforestation and to enhance the contribution of forestry sector to national social economic development. However, the objectives as outlined in the ZFAP appear far from being achieved owing to a chronic shortage of information on the dynamics, content, context and extent of the country's ecological profile. There are twenty-eight pieces of environmental legislation in Zambia. These laws, in general, provide for the conservation of natural resources or for the protection of the quality of the environment i.e. pollution control. In this regard the major pieces of legislation providing for conservation of natural resources are the National Parks and Wildlife Act, the Forests Act, the Fisheries Act, the Water Act, the Environmental Protection and Pollution Control Act and the Local Government Act.

Institutional Framework: As provided for under the Wildlife Act No. 12 of 1998, ZAWA (Zambia Wildlife Authority) is a body corporate with perpetual succession and a common seal, capable of suing and being sued, using its corporate name. The functions of ZAWA include, inter alia, the following: control, manage, conserve, protect and administer National Parks, Bird and Wildlife Sanctuaries, and GMAs, and to co-ordinate activities in these areas; adopt methods for ensuring the sustainability, conservation and preservation of natural habitats and biodiversity in the natural state, in the protected areas; prepare and implement management plans for these protected areas, in consultation with local communities and key supporters of the Authority; grant hunting concessions to hunting

outfitters in Game Management Areas (GMAs,) in partnership with local communities, and to designate areas to photographic tour operators in National Parks and GMAs.

The legal status of all protected areas in Zambia is contained in the Zambia Wildlife Act No. 12 of 1998. Under this wildlife legislation, biodiversity is conserved and managed under two categories of protected areas namely; National Parks and GMA's.

The Zambian government has recognized that protection, conservation, improvement, vegetation studies and natural resources inventories are a prerequisite for sustainable development (NCDP, 1994). In 1990, parliament passed the EPPCA No. 12, which provided for the formation of the Environmental Council of Zambia (ECZ), a body instituted in 1992 to monitor, among other issues, natural resources and to supervise Environmental Impact Assessment (EIA) reports. The government holistically revisited the National Conservation Strategy (NCS) through the development of the National Environmental Action Plan (NEAP, MENR, 1994) whose priority areas include, among others, forests and natural vegetation.

Despite these impressive documents, there has been no management plans of natural resources in the post-independence era. This is compounded by the lack of information which could otherwise, have been developed through intensive and extensive inventories of Zambia's ecology. In general, wasteful traditional agricultural methods, instincts of survival arising from poverty levels and population pressure has accelerated the depletion of natural resources, albeit without statistical records. Increased official rhetoric on the virtues of community based resource management and growth in the number of programmers, projects and in some instances forest inventory and or vegetation studies are welcome developments. However, they are insufficient to ensure the success of sustainable forestry management and development. The protection of the environment and wise management of the natural resource base are absolute requirements of any successful development program. The degradation of the natural resource base contributes to higher levels of poverty, while high incidences of poverty lead to reduced environmental conservation and protection.

2.9 HIV/AIDS Incidence

Zambia has experienced severe health and socio-economic impacts that are caused by mature HIV/AIDS epidemic cases. The most recent national population-based study, the Demographic and Health Survey (DHS) for 2001/2002, documents a HIV infection rate for persons ages 15-49 years at 16%, with rates for women at 18% and men at 13%. The country has an estimated 900,000 to 1.2 million persons living with HIV/AIDS. During the year 2000, over 100,000 people are believed to have died due to AIDS. Statistical data estimates a total of 572,000 orphans (aged 0-14 years) in Zambia, of which 82.4% were orphaned as a result of HIV/AIDS.

The rising death rates are likely to impact adversely and heavily on economic growth prospects, poverty, food security, social discipline and the range and quality of public services available to citizens. The most serious risk and conflict vulnerability will result from the rising number of orphans who often resort to organized crime due to lack of employment.

3. EVALUATION OF PROJECT/PROGRAM ACTIVITIES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

Below is the evaluation of the potential for SO5's activities to cause environmental impacts:

IR 5.1: Increased Access to Markets. Activities under this IR involve the identification of opportunities for beneficiary community productive participation in eco-tourism development; sustainable harvesting of non-timber forest and other natural products, such as fruits, fibers, grass, mushrooms, honey, medicinal plants, handicrafts and new product development; promotion of enhanced market opportunities and increased income generating activities for rural communities. *(Note: As explained in Section 1, this IEE does not cover nor approve support for timber extraction or mining)*. **These activities will have a direct effect on the environment and therefore are recommended for negative determination with conditions, which conditions are outlined in Section 4 .**

The other activities under IR5.1 involve the expansion of international business and trade partnerships, trade promotion through trade shows, trade-related informational tours, actions to provide appropriate HIV/AIDS control programs, establishment of producer-market linkages, agricultural and natural resource product identification,

marketing training, feasibility studies, promotion options for access to trade shows, market identification, promotion for livestock and natural resource products; providing services; natural resource and wildlife tourism promotion; and, HIV/AIDS behavior change, prevention and outreach programs. **These activities will not have a direct effect on the environment.**

Deferral is recommended for activities related, directly or indirectly, to logging/ timber extraction and gemstone collection (mining). Additional information regarding the full nature and scope of proposed logging/timber extraction and mining activities is required to permit appropriate environmental examinations and correct environmental determinations regarding these activities. Thus, no logging/timber extraction or mining activities are permitted absent advance environmental review completed in accordance with Reg 216 and Sections 118 and 119 of the Foreign Assistance Act of 1961, as amended, including Section 118(c)(14) and (15). This IEE shall be amended to include the results of the environmental reviews and the environmental determinations for any proposed logging/ timber extraction or mining activities prior to the obligation or expenditure of funds for such activities.

IR 5.2: Enhanced, Value-Added Production and Technologies. The activities include the establishment of product grades and standards; quality assurance; product quality certifications, such as ISO; and sanitary and phyto-sanitary labels, such as organic and Fair Trade Labels. In response to the HIV/AIDS epidemic control and the increase in women-headed households, labor-saving technologies will be employed, including providing information and training on vital household nutritional and health issues. **These activities will not have a direct effect on the environment.**

Activities related to the promotion of conservation farming, conservation tillage, the introduction of biotechnology and other production-enhancing technologies, such as small-scale irrigation, water harvesting, soil fertility interventions, promotion of eco-tourism through preservation of wildlife, protection of forests and cultural sites, improved infrastructure development, building of CBNRM networks, exploration of value-added options for existing and new sustainable harvesting and management of non-timber natural resources products, and expansion of opportunities for community involvement in eco-tourism **will have a direct effect on the environment.** The major environmental concerns associated with these activities relate to intensive agriculture production and processing, particularly those that involve the use of agro-chemicals and pesticides, and the processing of byproducts which could cause environmental degradation. Although it is recognized that certain production technologies that promote minimal tillage and reduced use of agro-chemicals and pesticides represent opportunities to enhance environmental stewardship; and some value-adding processes will give rise to productivity enhancing soil supplements, and although there will be opportunities for more responsible management of natural resources by community-based resource users – leading to the conservation of forest resources, other natural products and wildlife, **these activities will have a direct effect on the environment and therefore are recommended for negative determination with conditions, which conditions are outlined in Section 4.**

Deferral is recommended for proposed activities related, directly or indirectly, to GMOs as insufficient information is currently available to determine the nature and scope of proposed GMO activities, including those involving transgenic technology development and dissemination. Environmental review for GMO-related activities will be completed upon receipt of additional information., GMO-related activities shall be reviewed in accordance with Reg 216 and other applicable requirements as identified by the USAID Biosafety Officer in USAID/Washington prior to obligation or expenditure of any USAID funds for a GMO-related activity, including, inter alia, the transfer, testing, or release of biotechnology products into the environment. This IEE shall be amended to reflect the environmental review and determinations for GMO-related activities.

IR 5.3: Increased Access to Financial and Business Development Services This IR will assist small and medium rural entrepreneurs to access innovative finance mechanisms and profit enhancing services. This includes activities that promote or support: innovative finance and capital options for small-scale enterprises, including the use of credit guarantees to back up financing in some cases; inventory credits and warehouse receipts; credit and savings through out grower companies and producer groups; use of insurance; assistance with procurement mechanisms; investment-based options for capitalization, such as equity financing and venture capital; and, the needs of female clients, particularly where traditional and other constraints limit their access to finance and capital. This IR will include activities that seek to build operational and management capacities through provision of private sector BDS for business expansion and growth; expand private sector BDS (extension); build small-holder and NRM group business capacity; develop sources for BDS services, such as market information and business planning; and, support HIV/AIDS in the workplace programs. **These activities will not have a direct effect on the environment.**

However, these activities could have indirect effects on the environment. Given the potential for indirect effects, it is recommended that the mitigation measures set forth at Section 4.2.g. be adopted.

IR 5.4: Improved Enabling Environment for Growth. Activities under this IR will focus on the creation of an enabling environment to deal with policy and regulatory issues related to agriculture and natural resource management through support of public and private sector dialogue; identification of trade opportunities, issues and constraints; development of a supportive and enabling policy and regulatory environment for reform; and support for development of effective laws and regulations in the agriculture and environmental sectors. Agriculture-related issues include, inter alia: supporting consistent policies and practices regarding production inputs, technology development and output marketing channels; supporting the development of effective law, regulations and policies for finance and rural infrastructure development in the agriculture sector; review and possible reform of the Land Act of 1995, including its assessment of its implementation and the establishment of an administrative system to meet emerging production demands. Key issues in the natural resource sector include: coordination and potential consolidation of governmental environmental policies; revision to existing environmental laws and regulations (including those related to land tenure and CBNRM) and to strengthen the enforcement mechanisms and penalties; support for public and private dialogue to overcome policy and regulatory constraints to growth in the natural resource sector. **These activities will not have a direct effect on the environment.**

4.0 RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

4.1 Recommended Threshold Decisions and Conditions

The recommended Regulation 216 environmental Threshold Decisions are as given in Table 1. See section 4.2 for a listing of the mitigation and monitoring measures required for those activities receiving a Negative Determination with Conditions.

TABLE 1: SUMMARY OF USAID/ZAMBIA STRATEGIC OBJECTIVES FIVE (SO 5) IEE THRESHOLD DECISIONS

Threshold Determination	Relevant activities, comments, mitigation and monitoring measures as appropriate
IR 5.1: Increased Access to Markets	
Categorical Exclusion 22 CFR 216.2 (c)(i)(iii)(v) and (viii)	Activities involving the expansion of international business and trade partnerships, trade promotion through trade shows, trade-related informational tours, actions to provide appropriate HIV/AIDS control programs, establishment of producer-market linkages, agricultural and natural resource product identification, marketing training, feasibility studies, promotion options for access to trade shows, market identification, promotion for livestock and natural resource products; providing services; natural resource and wildlife tourism promotion; and, HIV/AIDS behavior change, prevention and outreach programs.
Negative Determination with Conditions 22 CFR 216.3 (a)(2)(iii).	<p>Activities involving the identification of opportunities for beneficiary community productive participation in eco-tourism development; sustainable harvesting of non-timber forest and other natural products, such as fruits, fibers, grass, mushrooms, honey, medicinal plants, handicrafts and new product development; promotion of enhanced market opportunities and increased income generating activities for rural communities.</p> <p><u>Mitigation and Monitoring</u></p> <p>A formalized environmental screening procedure shall be designed and implemented for these activities. A key component of the procedure shall be the Environmental Screening Form (ESF). The ESF shall be used to categorize activities, review, screen them for potential environmental impacts, and to include appropriate mitigation measures and procedures to cease implementation of an activity if adequate mitigation measures cannot be developed. Use of the ESF for activities is required for the above-listed</p>

	activities under this IR, in accordance with the methodology described in Annex G of the AFR <i>Environmental Guidelines for Small Scale Activities in Africa</i> (http://www.encapafrica.org/EPTM/annex_g.pdf). The Mission SO 5 team shall ensure that the ESF forms are completed by USAID implementing partners and by organizations implementing activities through sub-agreements with such partners. In addition, the SO team will ensure that any additional examination and/or IEE amendment triggered by the results of this environmental screening procedure will be completed, as required by the environmental screening procedures.
Deferral	Environmental reviews for activities related, directly or indirectly, to logging/ timber extraction and gemstone collection (mining) are deferred. Additional information regarding the full nature and scope of proposed logging/timber extraction and mining activities is required to permit appropriate environmental examinations and correct environmental determinations regarding these activities. Thus, no logging/ timber extraction or mining activities are permitted absent advance environmental review completed in accordance with Reg 216 and Sections 118 and 119 of the Foreign Assistance Act of 1961, as amended, including Section 118(c)(14) and (15). This IEE shall be amended to include the results of the environmental review and the environmental determinations for any proposed logging/ timber extraction or mining activities prior to the obligation or expenditure of funds for such activities.

IR 5. 2: Enhanced Value-Added Production and Service technologies	
Categorical Exclusion, 22 CFR 216.2 (c)(2)(i),(ii) (iii), (v), and (viii).	Activities that include the establishment of product grades and standards; quality assurance; product quality certifications, such as ISO; and sanitary and phyto-sanitary labels, such as organic and Fair Trade Labels; HIV/AIDS programs and programs targeting women-headed households.
Negative Determination with Conditions 22 CFR 216.3 (a)(2)(iii).	<p>Activities related to the promotion of conservation farming, conservation tillage, the introduction of biotechnology and other production-enhancing technologies, such as small-scale irrigation, water harvesting, soil fertility interventions, promotion of eco-tourism through preservation of wildlife, protection of forests and cultural sites, improved infrastructure development, building of CBNRM networks, exploration of value-added options for existing and new sustainable harvesting and management of non-timber natural resources products, and expansion of opportunities for community involvement in eco-tourism . The major environmental concerns associated with these activities relate to intensive agriculture production and processing, particularly those that involve the use of agro-chemicals and pesticides, and the processing of byproducts which could cause environmental degradation. Although it is recognized that certain production technologies that promote minimal tillage and reduced use of agro-chemicals and pesticides represent opportunities to enhance environmental stewardship; and some value-adding processes will give rise to productivity enhancing soil supplements, and although there will be opportunities for more responsible management of natural resources by community-based resource users – leading to the conservation of forest resources, other natural products and wildlife, these activities will have a direct effect on the environment and therefore are recommended for negative determination with conditions.</p> <p><u>Mitigation and Monitoring</u></p> <p>1) All of these activities must be subjected to a formalized environmental screening process, as described above in IR5.1.</p> <p>2) For any pesticide use proposed, the PERSUAP prepared for SO5 agriculture activities (32Zambia1_SO1_Crop_PERSUAP.doc , 2/26/02) will be amended as needed and submitted for approval by the BEO. No new uses or products not covered by the current PERSUAP are allowable until this amendment is approved.</p>
Deferral	A deferral is recommended for the development and dissemination of genetically modified organisms (GMO's), meaning that an environmental determination on these activities will await more complete information about the nature of the activities. No activities can begin in this area until an amendment to this IEE is approved covering these activities. Prior to irreversible commitment of funds to activities

	potentially involving GMOs in research, field trials or dissemination, the appropriate USAID Biosafety Procedures will be addressed (ADS 201.3.6.3b and draft ADS 211). Likewise, approval will be sought as appropriate (per (draft) ADS 211.3.1.3) from the cognizant national biosafety authority.
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IR 5.3: Increased Access to Financial and Business Development Services (BDS).	
Negative Determination w/ conditions as per 22CFR216.3(a)(2) (iii)	<p>Activities that involve the promotion or support of: innovative finance and capital options for small-scale enterprises, including the use of credit guarantees to back up financing in some cases; inventory credits and warehouse receipts; credit and savings through out grower companies and producer groups; use of insurance; assistance with procurement mechanisms; investment-based options for capitalization, such as equity financing and venture capital; and, the needs of female clients, particularly where traditional and other constraints limit their access to finance and capital. This IR will include activities that seek to build operational and management capacities through provision of private sector BDS for business expansion and growth; expand private sector BDS (extension); build small-holder and NRM group business capacity; develop sources for BDS services, such as market information and business planning; and, support HIV/AIDS in the workplace programs.</p> <p>As conditions, the SO 5 Team needs to assure:</p> <ol style="list-style-type: none"> That the activities supported by credit guarantees are screened for potential environmental impacts. This should be conducted through adaptation of the Environmental Screening approach identified above at the entry for IR 5.1. Further, additional guidance is available in Chapter III of the Africa Bureau's Environmental Guidelines for Small Scale Activities in Africa (http://www.encapafrica.org/SmallScaleGuidelines.htm). That the BDS institutions adopt, disseminate and implement environmental soundness principles into the service they offer to businesses, including advising clients about pertinent national and local environmental regulations. <p>The SO 5 team will also ensure that implementing partners take into consideration potential environmental impacts, as well as measures to avoid, mitigate and monitor for such impacts.</p>

IR 5.4: Improved Enabling Environment for Growth.	
Categorical Exclusion 22 CFR 216.2 (c)(2)(i) and (iii)	<p>Activities that involve the creation of an enabling environment to deal with policy and regulatory issues related to agriculture and natural resource management through support of public and private sector dialogue; identification of trade opportunities, issues and constraints; development of a supportive and enabling policy and regulatory environment for reform; and support for development of effective laws and regulations in the agriculture and environmental sectors.</p> <p>Note: These activities lend themselves to identification and discussion of opportunities for incorporation of environmental sustainability principles, so it is recommended (not required) that the program seek to introduce such discussions into these activities.</p>

4.2 Mitigation and Monitoring Measures

See Table 1 above for a list of activity-specific mitigation and monitoring conditions. In addition to these activity-specific conditions, the Mission SO Team is required to ensure that the following measures are adopted and implemented under SO 5 activities:

- The Mission must ensure that USAID-funded implementing instruments under SO5 (i.e., contracts, grants and cooperative agreements,) and sub-agreements executed under such agreements comply with Reg 216 and include the monitoring and mitigation measures set forth in this IEE, including, inter alia, the requirement that implementers adopt and implement appropriate environmental screening, monitoring and review procedures into the selection criteria for sub-grants made under contract or grant with USAID. To this end, the Mission shall also endeavor to ensure that all SO 5 implementing partners are adequately trained in the appropriate environmental screening, review and monitoring procedures for SO 5 activities, from the design and development stage, through implementation and close-out of activities. The **Africa Bureau Environmental Screening Form (ESF) and Review Process shall be used in the development of environmental screening, review and monitoring procedures for SO5 activities.** The training

requirement can be met through an ENCAP Training Course for EA, organized for USAID/Zambia Staff and partners. *For this to be done the USAID/Zambia Team needs to have a budget for the course.*

b. The Mission must ensure that USAID-funded implementers under SO5 utilize the Environmental Guidelines for Small-Scale Activities in Africa and other appropriate Africa Bureau and generic environmental assessment sources, to assist in identifying potential environmental impacts of activities, and to help determine the correct mitigation and monitoring conditions and measures for activities.

c. The Mission must ensure that USAID-funded implementers under SO5 identify, through environmental reviews required under USAID implementation instruments, all proposed environmental mitigation and monitoring measures requirements. Once the environmental review reports are approved, mitigation measures and monitoring procedures stated in the environmental review report should be considered as a requirement. Additionally, the SO team is responsible for ensuring that project implementers implement these agreed-upon mitigation and monitoring measures.

d. The Mission must ensure that USAID-funded implementing instruments under SO5 contain requirements to provide, at least annually, reports to USAID that provide updates on the implementation of mitigation and monitoring conditions and measures set forth in this IEE, the occurrence of new, unidentified impacts, results of environmental monitoring, and major modifications/revisions in the development activities.

e. The Mission is responsible for the monitoring and evaluation of environmental compliance of SO 5 programs and activities. This includes monitoring activities for compliance with Reg 216 and the conditions and mitigation measures set forth in this IEE through field visits, reporting on environmental compliance by implementing partners, and other appropriate means.

f. The Mission shall annually report, in a format specified by the BEO and/or in the Annual Report, to the extent appropriate, on the status of the adoption and implementation of the mitigation and monitoring measures set forth in this IEE, including an assessment of the Mission's implementing partners' progress in adopting and implementing the IEE mitigation and monitoring conditions and measures set forth in this IEE, which assessment shall be based, in significant part, on the results of periodic field visits to activity sites by the Mission's SO 5 team.

g. The Mission should seek to integrate environmentally sensibility and sustainable principles in the trade, market development, BDS for micro- and small enterprise and credit support activities that are recommended for categorical exclusion, but which could have an indirect effect on the environment. This means that environmental tools – such as sectoral environmental guidelines, tailored rapid environmental screening and reporting requirements - - should be developed and included as part of program implementation. The tools developed and disseminated should be business-oriented and emphasize "win-win" approaches for the parties involved.

It is believed that integration of environmentally sustainable and sensibility principles into MSE activities (including activities implemented through sub-agreements) may be achieved, in whole or part, by the following:

- technical assistance and other support provided to BSOs and MSEs should encourage the incorporation of internal environmental screening mechanism that serve to identify both direct and indirect environmental consequences of activities and the appropriate mitigation measures. MSE's should also be encouraged to adopt Cleaner Production (CP)-type approaches and other alternatives that promote environmental sustainability. This requires hands-on technical assistance in adopting and implementing the tools that operationalize environmental sustainability and sensibility principles, such as Clean Production technology;
- BSO and MSE's should be made aware of Zambia's environmental laws and regulations that apply to their operations; and MSE's should be apprised of important environmental policies and priorities established by the Government of Zambia, including those related to CBNRM; and
- Appropriate MSE sector environmental guidelines should be developed and implemented for SME activities, including activities implemented through sub-agreements. It is recommended that the guidelines draw upon the materials in the chapter on Microenterprise and environment in the 2nd Edition of the *USAID Africa Bureau Environmental Guidelines for Small-scale Activities*; <http://www.encapafrica.org/SmallScaleGuidelines.htm>,

esp. Part III - Guidelines for Micro and Small Enterprises (MSEs), specifically the annexes on environmental screening and commitment; and,
<http://www.encapfrica.org/EGSSAAsectionsMarch2003/MSE%20Chapter%206.pdf>

Mitigation measures and conditions specified above are deemed necessary to ensure that adverse impacts during SO5 activity implementation and management are minimized or prevented. In addition, the Mission SO 5 Team will need to continuously monitor and evaluate the implementation of activities covered by this IEE, ensuring that the activities remain as **Categorical Exclusions** or within the bounds of the **Negative Determination with Conditions**. The **Deferral** recommended for activities that have not yet been well defined requires that the additional information about the activity be provided before an environmental determination can be reached for those activities.

5. SUMMARY OF FINDINGS

SO 5: Increased Private Sector Competitiveness in Agriculture and Natural Resources will build on successes achieved and lessons learnt under the previous SO 1: Increased Rural Incomes of Selected Groups, to promote the growth and competitiveness of smallholder agriculture and the productive participation of rural communities in natural resource and tourism sectors-based micro-enterprise development. The strategy will emphasize competitiveness and the ability of producers and processors to increase product quality and quantity, improve marketing and margins, and increase market share in local, regional and international markets.

The purpose of this IEE is to provide the necessary environmental review and documentation, per 22 CFR Part 216, to permit the implementation of new development activities. The following four (4) Intermediate Results will contribute to the achievement of SO 5: IR 5.1: Increased Access to Markets; IR 5.2: Enhanced, Value-Added Production and Technologies; IR 5.3: Increased Access to Financial and Business Development Services; and IR 5.4: Improved Enabling Environment for Growth.

Categorical exclusions are recommended for the activities in IRs 5.1, 5.2 and 5.4, to the extent that, under 22 CFR 216.2(c)(1)(i), the classes of actions supported do not have a direct effect on the natural or physical environment. **Categorical exclusions** are recommended for these activities under 216.2(c)(2)(i), (ii), (iii), (v) and (xiv), because they entail education, technical assistance and training [i]; small scale experimentation and research [ii]; analyses, studies, coordinating activities, workshops and meetings [iii]; document and information transfers [v]; and studies, projects or programs intended to develop the capability of recipient countries and organizations to engage in development planning [xiv].

Note that the Categorical Exclusion under 22 CFR 216.2(c)(2)(x) (Intermediate Credit Institutions) does not apply to activities under this IEE, as USAID will expressly reserve the right to review loans for support to microfinance institutions and may require that procedures for environmental review be incorporated, where environmental impacts are deemed likely to occur.

Based on a pro-active approach that includes capacity-building for implementing partners and mitigation and monitoring/evaluation procedures to which the Mission commits itself, a **Negative Determination with Conditions**, pursuant to 22 CFR 216.3(a)(2)(iii)), is recommended for the following activities:

- 1) Intermediate Result (IR) 5.1: Increased Access to Markets. Activities under this IR seek to develop natural resource products, promote tourism market growth opportunities, and improve the environment through application of Community Based Natural Resource Management (CBNRM) approaches, including sustainable harvesting of non-timber forest products.
- 2) IR 5.2: Enhanced, Value-Added Production and Technologies. Activities under this IR will entail the promotion of conservation farming, conservation tillage, biotechnology products, and other production-enhancing technologies.
- 3) IR 5.3: Increased Access to Financial and Business Development Services. Activities under this IR will involve the provision of innovative finance and capital options for small-scale enterprises, use of credit guarantees (such as DCA), and provision of private sector Business Development Services (BDS) for business expansion and growth, expansion of private sector, building of small-holder and NRM group business capacity.

These above-listed activities shall be subjected to an environmental screening process, using the Africa Bureau Environmental Screening Form (ESF), so that potential adverse environmental impacts and their appropriate mitigation and monitoring measures can be identified and implemented. Host country sectoral environmental guidelines will be used in the implementation of recommended adverse impact mitigation and monitoring measures for minimizing or preventing the occurrence of adverse impacts.

A **Negative Determination with Conditions** is also recommended for pesticide use in any production enterprises supported under SO 5, pending further details on if, how and which pesticides may be used in the SO, and pending more details on any potential pest management component. **The conditions are that a BEO approved Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) will be prepared covering all affected programs in accordance with the requirements of USAID's Pesticide Procedures, set forth at 22 CFR 216.3(b); that the PERSUAP is widely and appropriately disseminated; and that the use of the PERSUAP is required for activities involving pesticides.** The PERSUAP shall be incorporated into this IEE through formal amendment of this IEE..

A **Deferral** is recommended for proposed two program components under SO 5: 1) Under 1R5.1, for any activities involving support for timber extraction or for mining, pending additional environmental review; and 2) Under IR5.2, for technology development and dissemination involving genetically modified organisms (GMOs), pending further details on if, how and which transgenic materials may be addressed by the SO, and more details on the biotechnology product promotion component.

As required by ADS 204.5.4, the Mission SO 5 Team will actively monitor ongoing activities for ensuring compliance with approved IEE recommendations, and modify or end activities that are not in compliance. The Mission team will undertake periodic field visits to assess the implementation and performance of mitigation and monitoring measures, and to identify appropriate areas of improvement where necessary. If additional activities are added to this program that are not described in this document, an amendment to this IEE must be prepared.